



**US Army Corps
of Engineers**
St. Louis District®

News Release

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U.S. Army Corps of Engineers Lock at Granite City Emerging From Repairs

Granite City, Ill – August 11, 2004 – The main 1200-foot chamber of Locks 27 near Granite City, Ill., will be placed back in operation late today, according to the U.S. Army Corps of Engineers, St. Louis District. The lock, which is the southernmost lock on the Mississippi River, was taken out of operation July 26 for the necessary work.

The work had been slated to begin July 12, but had to be delayed due to high water in the Chain of Rocks Canal and elevated levels of ground water alongside the structure.

The work was made necessary by the progressive deterioration of large bolts called tensioning rods that secure steel cross braces to the lock's miter doors, 70-foot tall steel doors that allow barge tows to move in and out of the southern end of the lock chamber. The rods at the top of the gates were in greatest need of repair and all 16 have been replaced with new tensioning rods. These rods keep the huge steel gates, built 51 years ago, square and flat while they are being moved through the water.

The original plan called for replacing all of the tensioning rods, 16 on the top and 16 more on the gates' bottoms. However, continued high levels of ground water due to spring and summer rains did not allow the ground water to come down as the adjacent river did in recent weeks. This made it impossible to safely pump the 30-million gallon lock chamber down low enough to change the bottom rods.

However, based on three inspections by divers, the most recent on Tuesday, August 10, Corps officials now know that only one rod on the bottom has broken and feel it is an acceptable risk to return to operation without changing the bottom bolts.

Repairs to the top of the gates, engineers calculate, have very substantially reduced the risks of returning to operation. However, they will continue to closely monitor the gates as they are operated to detect any changes as early as possible.

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Maintenance experts also detected and welded three cracks in the gates and inspected some smaller cracks. Some of these were drilled to prevent their spreading and others were deemed acceptable. After assessment by engineers this welding was conducted at the same time that the new cross brace bolts were being tensioned, thus saving two days on the critical repair schedule.

Throughout the work, the Corps of Engineers has maintained daily contact with the navigation industry and is eager to return the lock to operation before the approaching harvest season.

During the closure, more than 40 barge tows, most of the 15-barge maximum size for Upper Mississippi River operations, waited north and south of the area up to 54 hours for their turn to pass through the adjacent 600-foot auxiliary chamber. Using industry-supplied helper boats the operation went smoothly and safely, but with unavoidable costly delays.

Corps officials attribute the deterioration of the lock gates to deferred maintenance as a result of austere budgets for preventative and predictive maintenance.

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Note to Editors: For additional information, please contact the St. Louis District Public Affairs Office at 314-331-8002. You may also reach District spokesman Alan Dooley at his personal cell phone: 618-719-9039 or home at 618-939-5985.